

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re divisional patent application of 09/683,498 filed on January 9, 2002

Lanzerotti et al.

Serial No.: Not Yet Assigned

Group Art Unit: Not Yet Assigned

Filing Date: Concurrently Herewith

Examiner: Unknown

For: **SILICON GERMANIUM HETEROJUNCTION BIPOLAR TRANSISTOR WITH CARBON INCORPORATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

Under the provisions of 37 CFR §1.97 through §1.99 and pursuant to applicant's duty of disclosure under 37 CFR §1.56, applicant respectfully brings the following documents listed on the attached form PTO-1449, to the attention of the Examiner in charge of the above-identified application. All of these references were either cited or submitted in parent Application No. 09/152,587 and thus copies of these references are not provided in accordance with 37 C.F.R. §1.98(d).

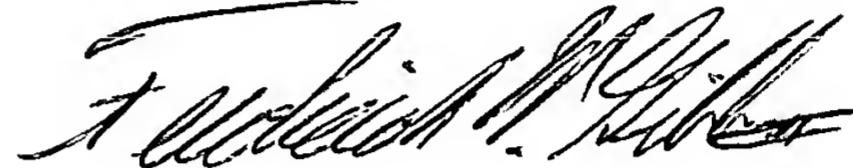
This citation does not constitute an admission that the references are relevant or material to the claims. They are only cited as constituting related art of which the applicant is aware.

It is respectfully requested that the listed references be considered by the Examiner and formally made of record in this application.

BUR920010146US2

Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's  
Deposit Account No. 09-0456.

Respectfully submitted,



Frederick W. Gibb, III  
Registration No. 37,629

Date: September 11, 2003  
McGinn & Gibb, PLLC  
2568-A Riva Road, Suite 304  
Annapolis, Maryland 21401  
(301) 261-8071  
Customer No. 29154

**INFORMATION DISCLOSURE CITATION**
*(Use several sheets if necessary)*

 ATTY DOCKET NO.  
**BUR920010146US2**

 SERIAL NO.  
**Not Yet Assigned**
**Lanzerotti et al.**
**FILING**
**Concurrently Herewith**
**GROUP**
**Unknown**
**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,885,614	12/05/1989	Furukawa et al.			
	5,116,455	05/26/1992	Daly			
	5,321,302	06/14/1994	Shimawaki			
	5,338,945	08/16/1994	Baliga et al.			
	5,360,986	11/01/1994	Candelaria			
	5,404,028	04/04/1995	Metzger et al.			
	5,468,658	11/21/1995	Bayraktaroglu			
	5,557,118	09/17/1996	Hashimoto			
	5,731,626	03/24/1998	Eaglesham et al.			
	5,783,845	07/21/1998	Kondo et al.			
	5,986,287	11/16/1999	Eberl et al.			

**FOREIGN PATENT DOCUMENTS**

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	JP11312685A	11/09/1999	Japan w/Abstract				✓
	JP2000012558A	01/14/2000	Japan w/Abstract				✓
	JP92000174033A	06/23/2000	Japan w/Abstract				✓
	WO 98/26457	06/18/1998	Germany				✓

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

		Lanzerotti et al., "Suppression of Boron Outdiffusion in SiGe HBTs by Carbon Incorporation", 1996 IEEE, pp. 10.2.1 - 10.2.4
		Stock et al. "Carbon Incorporation in Silicon for Suppressing Interstitial-Enhanced Boron Diffusion", Applied Physics Letter, March 13, 1995, Vol. 66, Issue 11, pp. 1370-1372

**EXAMINER**
**DATE CONSIDERED**

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>			ATTY DOCKET NO. <b>BUR920010146US2</b>		SERIAL NO. <b>Not Yet Assigned</b>			
			Lanzerotti et al.		FILING <b>Concurrently Herewith</b>		GROUP <b>Unknown</b>	
<b>U.S. PATENT DOCUMENTS</b>								
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS		
		6,043,139	03/28/2000	Eaglesham et al.				
		6,096,617	08/01/2000	Kizuki				
		6,107,151	08/22/2000	Enquist				
		6,229,197	05/08/2001	Plumton et al.				
		6,534,371	03/2003	Coolbaugh et al.				
		6,509,242	01/2003	Frei et al.				
		5,814,843	09/1998	Ohkubo, Michio				
		5,387,807	02/1995	Bayraktaroglu, Burhan				
<b>FOREIGN PATENT DOCUMENTS</b>								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
<b>OTHER DOCUMENTS</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>								
		Ghanti et al., "Control of Implant-Damage-Enhanced Boron Diffusion in Epitaxially Grown Si/p-Siz-x Gex/n-Si Heterojunction Bipolar Transistors", Journal of Electronic Materials, Vol. 24, No. 8, 1995, pp. 999-1002						
		Bodnar et al., "Growth of Ternary Alloy Siz-x-yGexCy By Rapid Thermal Chemical Vapor Deposition", Journal Vac. Science Technology, A., Vol. 1. 13, N. 5, Sept/Oct. 1995, pp.2336-2340						
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						YES
						NO
<b>OTHER DOCUMENTS</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>						
		Regolini et al., "Growth and Characterization of Strain Compensated Siz-x-yGexCy Epitaxial Layers", Materials Letters 18, 1993, pp. 57-60				
		Lanzerotti et al., "Si/Siz-x-yGexCy/Si Heterojunction Bipolar Transistors", IEEE Electronic Device Letters, Vol. 17, No. 7, July 1996, pp. 334-337				
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